

HP StorageWorks

FCA2214/FCA2214DC PCI-X host bus adapters for Linux, NetWare, and Windows release notes

Part number: AV-RSBNK-TE
Eleventh edition



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FCA2214/FCA2214DC PCI-X host bus adapters for Linux, NetWare, and Windows release notes

About this document

These release notes contain information for the HP StorageWorks FCA2214 and HP StorageWorks FCA2214DC PCI-X host bus adapters (HBAs) for Linux®, NetWare®, Windows® Server 2003, and Windows Server x64 Edition.

This section describes the content reflected in this document, including:

- [Release notes information](#), page 3
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Release notes information

- [Supported features and requirements](#), page 4
- [Windows driver parameters supporting multiple array types](#), page 6
- [Using the HP Smart Component](#), page 7
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Intended audience

This document is intended for customers who purchased the FCA2214/FCA2214DC HBAs running on the Linux, NetWare, or Windows operating systems.

Additional documentation, including white papers and best-practices documents, are available on the HP web site: <http://www.hp.com>.

Accessing future product updates

HP strongly recommends that customers sign up online using the Subscriber's choice web site: <http://www.hp.com/go/e-updates>.

- Subscribing to this service provides you with e-mail updates on the latest product enhancements, newest versions of drivers, and firmware documentation updates, as well as instant access to numerous other product resources.
- After signing up, you can quickly locate your products by selecting **Business support** and then **Storage** under Product Category.

Supported features and requirements

The FC2214/FC2214DC HBAs are supported on HP server platforms that:

- Support the operating systems, drivers, BIOS, and firmware listed in [Table 1](#)
- Meet the voltage and minimum PCI slot requirements listed in [Table 2](#)

System requirements

[Table 1](#) lists the operating systems, drivers, BIOS, and firmware versions qualified with the HBA.

Table 1 System requirements

| Feature | Requirement |
|--|---|
| Linux operating systems | Red Hat® Enterprise Linux 3, Update 5 and 6 Red Hat Enterprise Linux 4, Update 1 and 2 Red Hat Advanced Server 2.1 SUSE™ Linux Enterprise Server 8, SP4 SUSE Linux Enterprise Server 9, SP2 |
| NetWare operating systems | NetWare 5.1, 6.0, and 6.5 |
| Windows operating systems | Standard and Enterprise editions of: Windows 2000 with SP4 Windows Server 2003 and Windows Server 2003 SP1 Windows Server 2003 x64 Edition |
| Linux drivers* *Although previous driver versions are supported, HP strongly recommends that you install the 7.07.03 and 8.01.03 drivers. | 7.07.03 and 8.01.03 7.05.00 and 8.00.02 |
| NetWare driver | 6.80H |
| Windows drivers | |
| SCSIPOINT miniport 9.1.0.13 | Windows 2000 with SP4 Windows Server 2003 and Windows Server 2003 SP1 |
| Storport miniport 9.1.0.18 | Windows Server 2003 with SP1 Windows Server 2003 x64 Edition |

Table 1 System requirements (continued)

| Feature | Requirement |
|------------------------|--|
| BIOS | 1.45 |
| Fibre Channel switches | The FCA2214/FCA2214DC HBAs are supported on B-Series, C-Series, and M-Series switch products. For more information, see <i>HP StorageWorks SAN design reference guide</i> available on the HP web site: http://h18006.www1.hp.com/products/storageworks/san/documentation.html |

Voltage and PCI slot requirements

Table 2 lists the voltage and PCI slot requirements.


 **NOTE:** See the HP server PCI slot specifications to determine whether your server is compatible with these HBAs.

Table 2 Voltage and minimum PCI slot requirements


| HBA model number | HBA part number | HBA voltage requirement | HBA PCI signaling voltage | PCI slot type |
|------------------|-----------------|-------------------------|---------------------------|-------------------------|
| FCA2214 | 281541-B21 | 3.3 VDC | 3.3 Volt, 5 Volt tolerant | Universal PCI connector |
| FCA2214DC | 321835-B21 | | | |

Windows driver parameters supporting multiple array types

With the HP common set of Windows SCSI/PORT miniport driver parameters, a Windows host can now access EVA, MSA, and XP storage arrays simultaneously. [Table 3](#) lists the supported parameters for configurations in which a Windows host accesses different storage array types simultaneously.

Table 3 Windows SCSI/PORT and Storport miniport driver parameters

| Parameter | HP default |
|--------------------|--|
| Executionthrottle | 16 |
| RstBus | 0 RstBus=2 may have been inadvertently set. Remove this parameter from the registry. |
| EnableRLIPReset | 0 |
| EnableLIPFullLogin | 1 |
| EnableTargetReset | 1 |
| PortDownRetryCount | 16 |
| LoginTimeout | 4 X, then 2X RATO |
| LinkDownTimeout | 8 |
| NumberOfRequests | 150 |
| MaximumSGLList | 255 |
| IntMode | 0 |
| IntDelay | 0 |
| UseSameNN | 0 |
| EnableADISC | 0 |


 **NOTE:** Additional parameters are available but HP uses the QLogic defaults. For more information and definitions on parameters, see the file 24xxBiosReadme.txt that is available when you download the BIOS.

Using the HP Smart Component

This section describes how to use the HP Smart Component with the HBAs.

Using the Smart Component to install Windows drivers

To install HBA Windows drivers, obtain the latest Smart Component for your configuration and copy it to your Windows desktop. Double-click **Smart Component**, and then click **Install**. The installation completes automatically.

 **NOTE:** If you are performing a driver upgrade, HP recommends that, prior to launching the installation, you verify that the current driver parameter settings match those in [Table 3](#) on page 6. If there are any discrepancies, launch the Smart Component using the command prompt window.

To launch the Smart Component:

1. Open a command prompt window.
2. Use the `CD` command to set the current directory to the folder containing the Smart Component bug fixes for the SCSI PORT miniport driver.
3. Enter the following command:

```
cp00xxxx.exe /X
```

The `xxxx` is the numerical value in the Smart Component's name. This command installs the new driver and ensures that all registry parameters associated with the driver are using QLogic defaults or using the HP-supported values.

For more information about Smart Component installation options, see the `QLS***Readme.txt` file. To obtain a copy of this document, click **Smart Component**, and then click **Extract** to place a copy of all Smart Component files in the folder you select.

Using the Smart Component version file to obtain HBA information

To obtain HBA information using the Smart Component version file:

1. Locate the version file in the `%systemroot%\StorageWorks\Version` folder. Double-click the executable file to view the information screen.
2. Click **OK** to save this information to a text file.

Consider the following when using the HP Smart Component:

- The Smart Component kit comprises multiple subcomponents. Do not change individual subcomponents manually. Changing any subcomponent after installation can lead to problems when you run a different version of the Smart Component.
- The Smart Component version file on your system upgrades or downgrades the subcomponents only when you run another version of the Smart Component. The version file does not change by upgrading or downgrading a subcomponent, such as a driver, application, or configuration.

You may see the following messages:

| This message: | Occurs when: |
|--|--|
| The software is installed and up to date. | You install the Smart Component and then manually upgrade or downgrade the driver. |
| The software is installed but is not up to date. | You install a more recent Smart Component than the one currently installed. |
| The software is installed but the installed version is newer than the version you are attempting to install. | You attempt to install an older Smart Component when a newer version is present. |
| The software is installed but is not up to date. A manually upgraded driver may get downgraded as a result of running the Smart Component kit. | <p>You install the Smart Component 1.0.0.0, which contains subcomponent driver 3.0.0.0, and you manually update the driver from 3.0.0.0 to 4.0.0.0. The HP Smart Component retains the HP Smart Component 1.0.0.0 with driver 3.0.0.0.</p> <p>If you install a new Smart Component kit (such as 2.0.0.0, which contains driver 3.5.0.0), the installation detects the previous Smart Component kit version (1.0.0.0) and displays the message.</p> |

Known issues

This section describes known issues with the FCA2214/FCA2214DC HBAs.

Linux systems issues

During testing, an issue with the ext3 filesystem was observed. The following condition is currently under investigation:

The condition occurs when an ext3 filesystem reaches its capacity to the point at which ENOSPC is returned to write requests for a long period of time and the filesystem is unmounted: if a forced check (`fsck -fy`) is performed prior to the next mount, it appears that this sequence can cause corruption of the filesystem inode information.

Windows systems issues

This section describes the restrictions for the FCA2214/FCA2214DC HBAs on Windows operating systems.

- LUNs are dropped after an RSCN caused by a warm reboot of the NSRs (e2400-160) in Crossroads ESL712 with firmware 5.6.06. This results from the interaction between the driver and the Crossroads firmware.

To correct this problem, use the latest driver ([Table 1](#) on page 4) with Crossroads e2400-160 firmware version 5.6.69.



NOTE: You can also use driver 9.0.2.11 or 9.0.2.16 to correct this problem.

- The event log shows Ql2300 Event ID 11 when you reboot one cluster node using the driver 9.0.0.13. An internal parity error occurs when dereferencing a bad XmlocbList pointer under the following configurations:
 - FCA2214 HBA on a Windows 2000 cluster
 - HP Proliant DL580 G2 servers
 - MSA1000 with MSAHUB 2/3

To correct this issue, use the latest driver (Table 1 on page 4).

- On Windows Server 2003 systems, clients may be disconnected, generating Event ID 11 and Event ID 15 in the event log. This problem may occur under high-stress conditions if there is a SCSIPIRT driver error. It can also cause network timeouts if remote computers access data on the drives that are using the SCSIPIRT driver on the Windows Server 2003 system.

To correct this problem, obtain the latest Microsoft QFE 90898 by following the instructions on the Microsoft® web site: <http://support.microsoft.com/contactus/?ws=support>.

- On a Windows server, you can use SCSIPIRT and Storport miniport drivers for HBAs from different vendors. However, within that server, all HBAs from a single vendor must operate exclusively with either all SCSIPIRT miniport drivers or all Storport miniport drivers.

Documentation issue

On page 46 of the *HP StorageWorks FCA2214/FCA2214DC PCI-X Host Bus Adapters for Linux, NetWare, and Windows Installation Guide*, it states that the default for Enable Target Reset is **No**. The default setting for Enable Target Reset is **Yes**.

Server restriction

The FCA2214 and FCA2214DC HBAs are not supported on Linux, NetWare, or Windows with HP Integrity servers.